Breakthrough lens technology

A new generation of lenses offers the widest range of vision after cataract surgery, with fewer visual disturbances, says cataract surgeon Dr David Goh

Cataracts are a condition where the normal lens in the eye becomes cloudy with ageing. In 2022, the World Health Organisation listed it as one of the leading causes of vision impairment and blindness worldwide. This is especially common as people get older, and is reported in over 80 per cent of the Singapore population aged 60 and above.

Treatment is via surgery, where the patient's cloudy lens is replaced with a new lens. Cataract surgeon, Dr David Goh of Novena Bladeless Cataract Surgery & Eye Specialist Centre, shares more.

What are the available options for cataract surgery with multifocal intraocular lens (MF-IOL) implants?

First, have a discussion with your surgeon about your lifestyle and how you use your eyes on a daily basis. Also, many patients today want the freedom of not having to wear spectacles after their operation.

A good option would be premium MF-IOLs that also allow correction of presbyopia, myopia and astigmatism. Surgeons can now help patients achieve optimal vision through matching of available technologies with the patients' visual needs by modifying the eyes' postoperative power.

Previously, intraocular lenses (IOL) were only available in monofocal and standard multifocal options. Updated versions include Extended Depth of Focus multifocal lenses (EDOF-MF) and Trifocals, which are now offered as standard options for patients who wish to have their spectacle degree corrected on top of removing their cataracts.

The trade off with Trifocals is potential night vision problems such as glare, halos and starbursts while driving, as well as reduced contrast in dim lighting. While EDOF-MF significantly reduces these problems, they cannot correct vision with as wide a range as Trifocals.

Synergy of multifocality

Recently, the latest generation of MF-IOLs to arrive on the market combine the benefits of Trifocals and



Explore the option of premium multifocal intraocular lenses with your surgeon. PHOTO: DR DAVID GOH

EDOF-MF technologies. Incorporating the benefits of Trifocals along with the EDOF-MFs' reduced side effects of halos and glare, these unique IOLs provide synergy in terms of combining the widest range of vision with fewer visual disturbances.

The majority of my patients who have had the latest MF-IOLs inserted are experiencing clear and continuous reading vision up to 33cm, enabling them to read fine print and even smaller Chinese text at a closer working distance, without the need for spectacles.

Laser focus

In my practice, over 95 per cent of multifocal surgery is now bladeless, using the femtosecond laser (pictured above). The biggest advantage is that this allows the MF-IOL to be perfectly centralised to the visual axis.

On top of that, 3D optical coherence tomography scans and laser precision creates perfectly sized openings for IOLs. This improves refractive outcomes and maximises patients' chances of achieving total independence from spectacles. No blades or knives are required during surgery, which takes about 20 to 30 minutes.

EYE SEMINAR: CATARACT AND PRESBYOPIA TREATMENT

February 18 (11.00 am -12:00 pm) Venue: #19-03, Royal Square Medical Centre 101 Irrawaddy Rd, Singapore 329565 Admission is free. Call 6560 2220 to register.



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